Women's Health

Operator Manual

Welch Allyn™

Service Manual

Video Colposcope

(introduced December 2000)

Vertical Pole: 88000A, 88002A, 88004A, 88006A
Swing Arm : 89000A, 89002A, 89004A, 89006A

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Part Number: 880325

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Part No	Rev	Description	ECN #	Date	Approved
880325	A	New Release of Stand Alone Video Colposcope (introduced December 20000) Service Manual	5-42651	1/05/01	RS

Drawings and/or illustrations and/or part numbers contained in this document are for reference purposes only. For current revisions call Welch Allyn Customer Service listed in appendix D of this manual.

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1.1 About the Video Colposcope (Introduced December 2000)

The Video Colposcope introduced December 2000 has an internal light source like its predecessor. The new version has additional features:

1 - an antireflection system of two polarizing filters.

2 - a magnification system of up to 35x and the ability to view the magnification index on the monitor during procedures.

3- a faster green filter

This Service Manual covers the 'head' or actual Colposcope only and not the poles and power supplies.

Electrical Interconnect diagrams are found in the Appendix section to assist with troubleshooting the pole mounted power supplies and both versions of the Colposcope.

Refer to the Colposcope Users Manual for instructions on use and cleaning. (Domestic manual part 880324 and international manual part 880332).

A Colposcope Quick Reference Guide (part 880331) is also available.

1.2
Help Information

All service and repairs must be performed by fully trained and properly equipped personnel, using genuine replacement parts and correct procedures. Failure to do so will invalidate the product warranty.

Safety Warnings

Read and understand all safety warnings and service notes printed in the Colposcope Users Manual (part 880324) or the Colposcope Quick Reference Guide (part 880331).

These documents contain complete descriptions of features, use, cleaning and hook up. If in doubt about any precaution or procedure, for phone help, or to order additional copies of the documentation contact a Welch Allyn Product Service Center as listed in Appendix D.

1.3 Basic System Description

The Stand Alone version is not a Video Path product and does not require a light source. It is a camera and light source in one compact housing mounted on either a vertical pole stand or a swing arm stand as shown in Figure 1. The table on Page 1-5 is a list of product numbers and repair bill numbers. It also lists the product numbers for the camera units only.

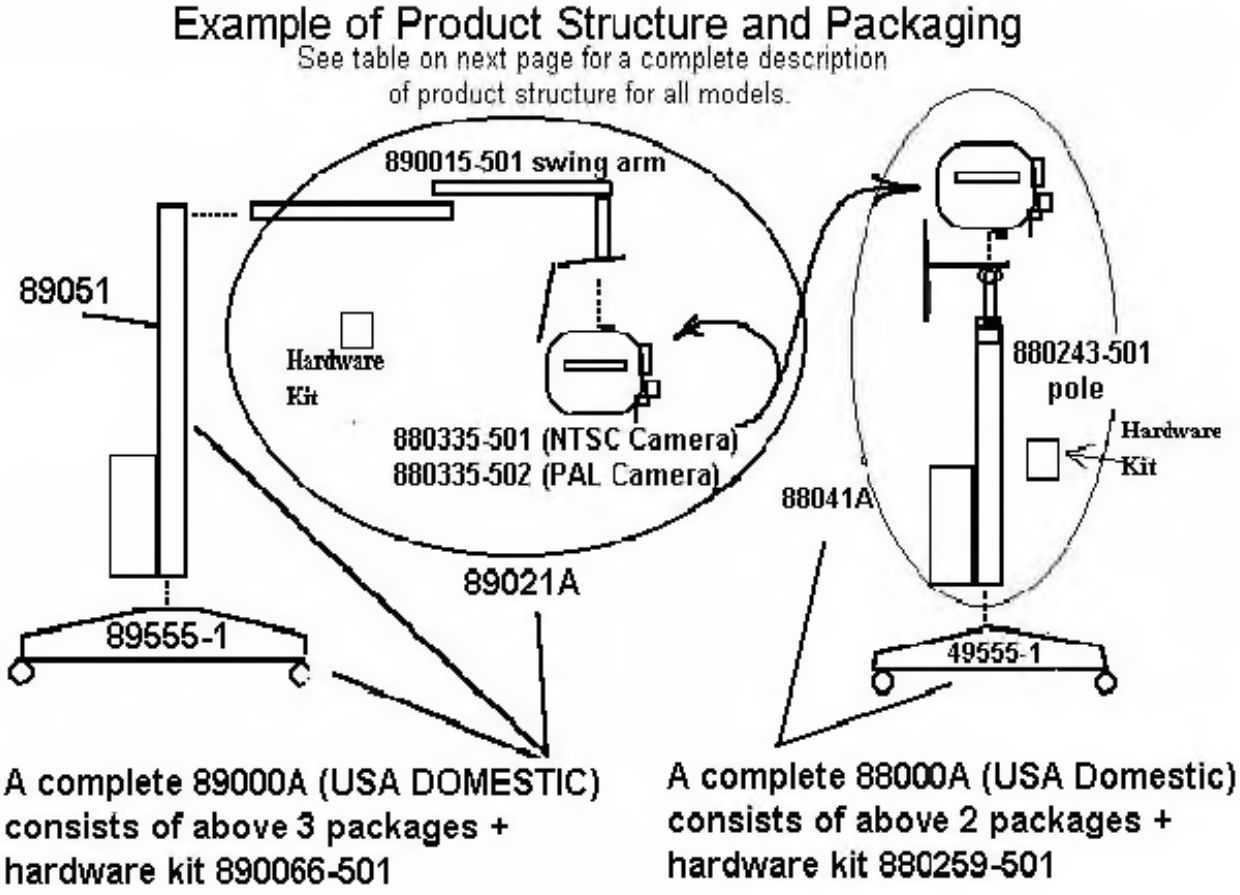

Example of Product Structure and Packaging
See table on next page for a complete description of product structure for all models.
890015-501 swing arm
89051
Hardware Kit
880335-501 (NTSC Camera)
880335-502 (PAL Camera)
89021A
89555-1
A complete 89000A (USA DOMESTIC) consists of above 3 packages + hardware kit 890066-501
880243-501 pole
Hardware Kit
88041A
49555-1
A complete 88000A (USA Domestic) consists of above 2 packages + hardware kit 880259-501

Figure 1

Product Number	Repair Bill Number	Description/Format	Market Application
88000A Consists of: 88041A Camera/Pole Assy with 49555-1base	***88041A Repair*** which is the repair bill for the Camera and pole assembly	**Vertical Stand with RS232 NTSC camera.** (The camera is part number 880335-501)	**USA/Japan (domestic)**
88002A Consists of: 88042A Camera/Pole Assy with 49555-1base	***88042A Repair*** which is the repair bill for the Camera and pole assembly	**Vertical Stand with RS232 PAL camera.** (The camera is part number 880335-502)	**Europe**
88004A Consists of: 88044A Camera/Pole Assy with 49555-1base	***88044A Repair*** which is the repair bill for the Camera and pole assembly	**Vertical Stand with RS232 PAL camera.** (The camera is part number 880335-502)	**United Kingdom**
88006A Consists of: 88046A Camera/Pole Assy with 49555-1base	***88046A Repair*** which is the repair bill for the Camera and pole assembly	**Vertical Stand with RS232 PAL camera.** (The camera is part number 880335-502)	**Australia**
89000A Consists of: 89021A Camera/Swing Arm Assy with a 89051 Pole and a 89555-1 base	***89021A Repair*** which is the repair bill for the Camera/Swing Arm assembly.	**Swing Arm with RS232 NTSC camera.** (The camera is part number 880335-501)	**USA/Japan (domestic)**
89002A Consists of: 89022A Camera/Swing Arm Assy with a 89051 Pole and a 89555-1 base	***89022A Repair*** which is the repair bill for the Camera/Swing Arm assembly.	**Swing Arm with RS232 PAL camera.** (The camera is part number 880335-502)	**Europe**
89004A Consists of: 89024A Camera/Swing Arm Assy with a 89051 Pole and a 89555-1 base	***89024A Repair*** which is the repair bill for the Camera/Swing Arm assembly.	**Swing Arm with RS232 PAL camera.** (The camera is part number 880335-502)	**United Kingdom**
89006A Consists of: 89026A Camera/Swing Arm Assy with a 89051 Pole and a 89555-1 base	***89026A Repair*** which is the repair bill for the Camera/Swing Arm assembly.	**Swing Arm with RS232 PAL camera.** (The camera is part number 880335-502)	**Australia**

2.1 Incoming Inspection of Colposcopes

2.1.1 Perform physical examination of returned colposcope and accessory cables, cords etc.

2.1.2 Make record of what components were received. Note serial numbers where applicable.

2.1.3 Check the physical and electrical condition of all items including S-video cables, power cords, RS232 cables, all pins and sockets.

2.1.4 Check the lamp connector. The lamp has a small and a large pin. Make sure the lamp socket has not been ruined by someone connecting the connector in reverse. This would damage the connector and make lamp operation intermittent. Connectors must fit lamp pins securely.

2.1.5 Check Electrical, Optical, and Mechanical functions:

1) **Lamp** operation
2) **Fan** operation
3) **Lamp door micro switch safety function.** Try to run unit without lamp door. If lamp lights, then micro switch(s) are stuck or defective.
4) **Colposcope attachment** to pole or swing arm.
5) **Colposcope functions**...allow approximately 10 seconds for the camera unit to stabilize and focus. The camera will stabilize at zoom (-).
6) **Focus:** Check focus, zoom
7) **Check video picture quality:** view a color bar chart and verify that the colors on the monitor are (visual reference) the same as the bar chart. Verify that the image is free from any visible video noise.
8) **Check green filter operation:** the green filter led should flash as it changes
into an out of the green filter mode. It will stay lit while the green filter is on.
9) **Check blue filter operation:** the blue filter led should flash as it changes into and out of the blue filter mode. It will stay lit while the blue filter is on.
10) **Check the Light Director movement:** It should move freely and detent in three positions: 45 degrees left, right and back to center. Check the projected spot for uniformity and no dark spots.
11) **Polarization movement:** Check polarization arm for free movement of 20° in both directions.
12) **Check magnification index:** Push magnification button on colposcope and verify that magnification index displays on the monitor.

13) Check all mechanical fasteners for tightness.

14) Check all cords and cables for solid connectionsduring unit operation.

15) Check the printer functions of the colposcope handle.
Verify that the “F” button will freeze the live image as displayed on the moni tor or three beeps from the printer and “No Paper” text appears on the moni tor and printer.
Verify that the “C” button will print the frozen image displayed on the monitor.
Verify that the “V” button will cause the monitor to alternately display the live video then the still “frozen” image.

16) Check the stands (swing arm, and vertical pole, casters) for function and smooth operation. Check the brakes.

17) Check lenses for scratches, fingerprints, smudges, dust, moisture.

2.2 Service Tools

1) Torx T-15 Driver for housing screws.

2) English Hex Key set for various hex head fasteners

3) One extra hex key

4) RS232 Interface Cable Welch Allyn order number 88500

5) Strap Wrench T-10913

6) Achromatic Lens Assembly Tool - T-14716

7) **Monitor:** Service Equipment should include a monitor for your standard. This is a Sony PVM 1350 (NTSC) or a Sony PVM-1450 QM (PAL).

Note: this is not an underscan monitor as is the Sony PVM-1351Q AC120V 50/60Hz (NTSC/PAL/SECAM)

8) **Printer:** To check the RS232 functioning of the Colposcope. This is a Sony VP-1800MD (NTSC) or a Sony VP-1800 EPM (PAL).

9) Standard electronic hand tools and Digital Volt Ohm Meter will be required for basic troubleshooting such as checking output voltages and continuity.

3.1 Troubleshooting

Condition	Check	Action
Power does not come on.	Power cord	Check connections at power supply and wall outlet. Plug the power cord into a wall outlet known to work.
	Fuses	Remove fuse panel and replace blown fuse with T1.00L 250 1A time lag.
	Attachment of unit to handle.	Check colposcope unit's alignment with handle.
No image on monitor. (Refer to Color Video Monitor Operating Instructions)	Attachment of unit to handle and door to unit.	Make sure lamp access door and handle are properly attached.
	Monitor/other peripheral devices.	Make sure power is on all devices.
	Monitor input selection.	Make sure correct input selection is made on the front panel. Make sure Channel "C" is selected.
	Cable connections.	Make sure all video cables are connected properly.
Lamp will not light.	Lamp housing	Make sure lamp assembly is installed properly.
	Lamp	Replace lamp.
	Lamp access door.	Make sure lamp access door is properly closed.
	Lamp connector loose.	Check socket for tight fit.
Printer does not respond properly to handle buttons. (Refer to Color Video Printer Operating Instructions)	Power cord and printer.	Unplug cord from wall outlet, then plug cord back into outlet. At the same time, turn printer off and then on again.
	Printer	Make sure lamp access door is properly closed.
	Printer not set up properly.	Set Dip Switches to 9,600 Baud Rate. Make sure correct input selection is selected. Switches 3 & 4 are "On", all others are "Off" Reset printer by turning off then on again. Sony VP 1800.
Black and white image only.	Monitor of one video standard with camera of another video standard.	Order correct standards.
	Defective "S" Video Cable.	Replace with known good cable.
	Bent pin ar camera, power supply or cable connector.	Replace connector.
	S video cable not plugged in all the way.	Restore good fit.
	Wrong settings on monitor.	Make sure Blue Only is not selected on monitor.
	Rolling picture.	S Video cable connector damaged. Have wall outlet checked "properly grounded."

Note: For monitor default settings, refer to the Owner's Manual included with the monitor.

Assembled Colposcope

CAUTION: LAMP AREA WILL BE HOT IMMEDIATELY AFTER LAMP OPERATION!!

Slide access door away from housing assembly.

Remove connector from lamp.

Note: Connector has 2 different size holes. See Service Note in Section 2, page 2.

Slide lamp away from lamp housing assembly.

Observe the correct path for lamp wires.

Remove the 4-torx screws from left outer housing with a T-15 screwdriver.

Reach under label and peel away from housing.

Open outer housing this way to avoid stress on ribbon cable.

Disconnect locking connector.

Observe the correct positioning of ribbon cable in left outer housing.

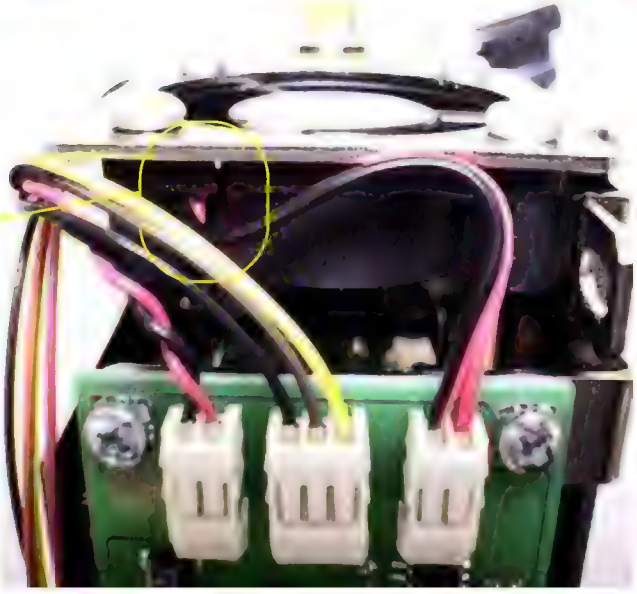
Remove the 6 phillip head screws that hold the switch PCB to the left outer housing.

The switch pad is attached to the left and right switch PCB by rubber tabs. Gently pull tabs away from switch PCB.

Logic PCB is removed by removing connectors and 4 phillip head screws.

Note connector orientation and wire harness path on Logic PCB.

Fan wire exits on left side.



Gently pull the light director from focusing sleeve.

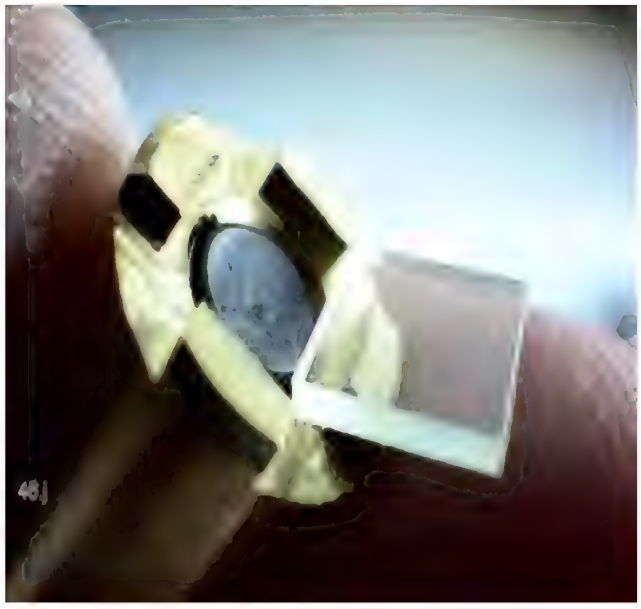
Observe the positioning of plastic tie wrap. This tie wrap serves as a polarizing filter brake.

Unscrew focusing sleeve from lamp housing.

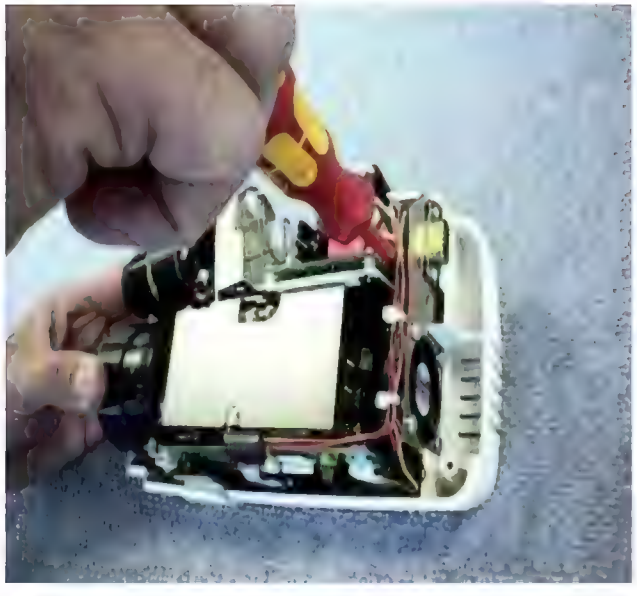
Note orientation of light director, filter and focusing sleeve.

The glass rod/ferrule assembly may come out with the focusing sleeve.

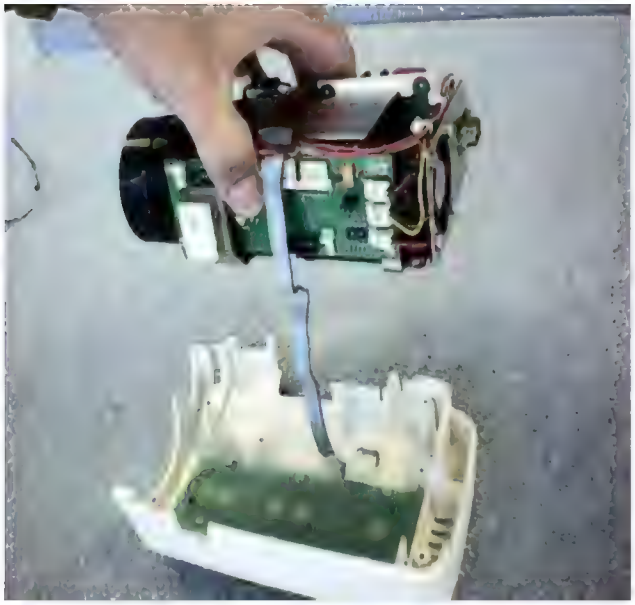
Do not lose the UV filter in the end of the brass ferrule.



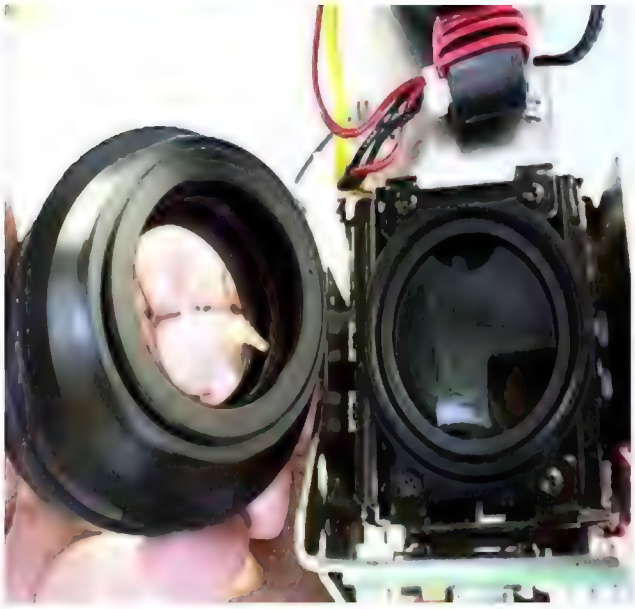
Camera chassis removal, from the right housing is accomplished by removing the 3 torx T-15 screws from right outer housing.



Remove camera from right housing.

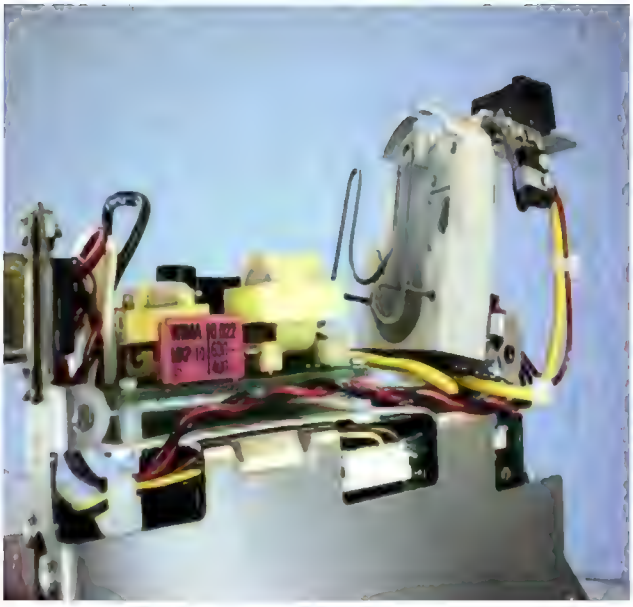


Unscrew outer lens.

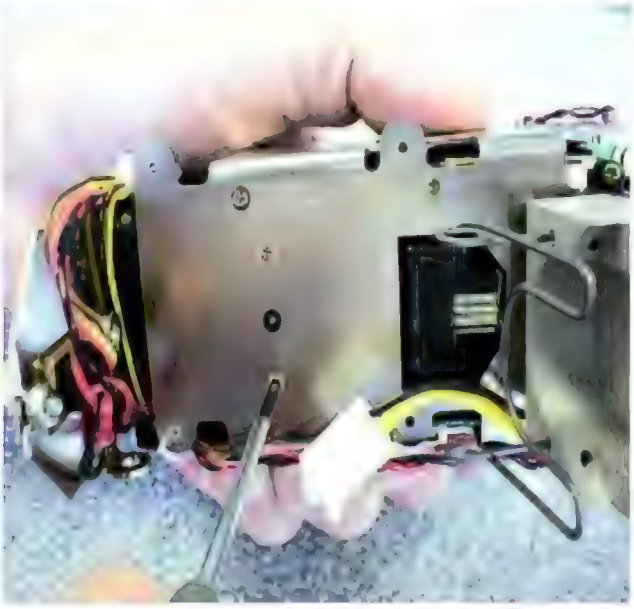


Remove lens gasket and lens filter. Note lens filter tab orientation.

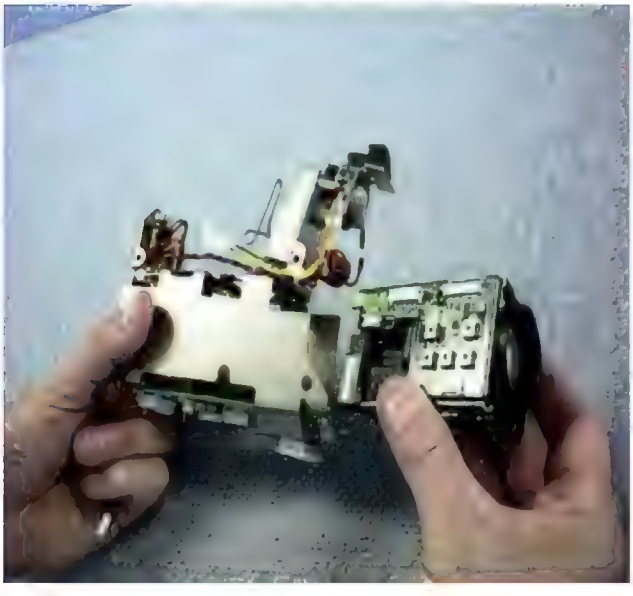
Removal of ballast PCB is accomplished by removing connector and 4 screws.



Unscrew three phillip head screws for Sony camera removal.



Gently pull camera from chassis.



IMPORTANT: Note the orientation of fiber washer. During reassembly make sure fiber washer is over the thermal cut out as shown. Improper installation will result in power supply damage. Use thread lock 222 on the screw. Do not over tighten.

Part Number	Description
M11051	4 X 6 POLY BAG
M11478	PARTS LABEL
M13172	OFF WHITE TOUCH UP PAINT
M30345	LOCTITE RC/680 50 ML BOTTLE
M30372	LOCTITE 403
M30373	LOCTITE 425 ASSURE THDLOCKER
M30375	LOCTITE-222
M30383	MASTERBOND EP42HT EPOXY
M30385	ACCELERATOR
M31426	.032DIA ENERGIZED ROSIN SOLDER
M40162	91% ISOPROPYL ALCOHOL
106100-11	PHPS 4-40 X.312
106100-17	PHPS 2-56 X.312
106101-1	RETAINING RING
106101-19	LOCK RING
106102-21	FHPS #8-32 X .375
106102-22	#2-56 FHPS (BLK) X .250
106102-26	6-32 X .75 FHPS-BLACK"
106102-4	FHPS 6-32 X .375 LG
106102-7	FLAT HEAD SCREW
106103-21	WASHER
106103-28	WASHER, PIVOT
106103-29	WASHER,
106103-34	FLAT WASHER
106103-35	WASHER, PIVOT
106103-42	WASHER, FLAT .120 X .250 X.035
106105-3	#4 LOCKWASHER,HEL
106108-3	O-RING
106113-19	SET SCREW, 8-32 X.187 CONE
106113-6	#4-40 SOCKET SET SCREW
106120-5	6-32 X.375 FLSTR HD PLASTIC
106120-6	6-32 X.250 FILL; HD-BLK
106120-7	#4-40 X.375 FILHD PHPS
106121-18	.062 SHRINK TUBING
106121-19	.187 SHRINK TUBING
106123-18	SCREW M2 X 6MM
106124-18	#8 X 1.25 SELF TAPPING SCREW
106124-26	#6 X 2.00 PLASTITE TORX
106124-27	#6 X .375 PLASTITE TORX
106126-21	DOWEL PIN .062 X .375
106126-26	DOWEL PIN
106126-29	GROOVED PIN TYPE F .0938X.3125
106128-8	1/4 SPACER
106129-8	RING TERMINAL
106138-8	SCREW BUTTON HEAD
106140-10	.625 W/EXT WASHER
106140-2	4-40 W/EXT WASHER
106140-3	4-40 X.25 W/EXT WASHER
106142-15	SPRING WASHER
106148-1	2-56 X .437 W/INT WASHER
236686	SWITCH,SPDT,5A,BUTTON ACT SX-

Part Number	Description
265007	2-56 X 1/8 LG SET SCREW
483017	PHPS 6-32 X 5/16
488307-9	FUSE-1000 MA
495075	BALLAST SIDE CONN ASSY C12A003
745150	STRAIN RELIEF
761076-0	POWER CORD, DETACH.(DOM/JAPAN)
761077-1	TIE WRAP
785012-1	SELF TAPPING SCREW .37
790043	4-40 X .250 HEX NUT
880031	POWER SUPPLY 40 WATT
880049	ON/OFF SWITCH
880051	CONNECTOR, D9 FEMALE
880058	2X CONVERTER
880059	ACHROMAT LENS
880060	GLASS ROD
880061	LAMP SPRING
880062	21W BALLAST (JR43205119-01)
880064	INSULATOR, BALLAST
880073-3	HSG, LEFT W/ MACHINED SLOT
880074-3	HOUSING, RIGHT PRINTED
880079	LAMP DOOR
880084	KNOB, COLP ATTACHMENT
880086	SHAFT, YAW BRAKE
880089-1	WIRE HARNESS RT CONTROL PAD
880090-1	WIRE HARNESS, LEFT CONTROL
880094	GRIP
880102-1	CONNECTOR, 4PIN
880106-501	PC BOARD, RS232
880108-3	STIFFENER, HANDLE (VERT)
880109-1	HOUSING, 4PIN
880109-2	HOUSING, 2PIN
880110	CONTACT PIN
880121	LATCH BLOCK KIT
880134	PIN, CONNECTOR
880137-503	CARTON, W/INSERTS, VERT
880158-501	SET, TRANSFORMER HSGS,MACH
880159-501	SET, HANDLES, VERT POLE
880164-501	TELEMED KEYPAD ASSY
880170	WIREHARNESS, R232-D9
880171-1	LABEL, BRIGHTNESS
880172	SVHS - WIRE HARNESS
880181	S-VIDEO CABLE
880250-501	ASSEMBLY, LIGHT DIRECTOR
880259-501	HARDWARE KIT
880260	KNOB, COLP
880264-501	VERTICAL POLE, REPLACEMENT
880302	FRAME COLPOSCOPE
880305-501	CAMERA LOGIC PC BOARD
880308-501	FOCUSING SLEEVE ASSEMBLY
880309	POLARIZATION FILTER - FIXED
880310	POLORIZATION FILTER ADJUSTABLE

Part Number	Description
880315	LAMP MOUNT
880316	CAP - WIRE HANDLE
880317-1	SONY CAMERA - NTSC
880319	WIRE HARNESS - CAMERA
880320	WIRE HARNESS - FAN
880321	WIRE HARNESS - COMMUNICATIONS
880322	WIRE HARNESS, COLP HEAD
880323-501	ASM. BUTTON PAD - LEFT
880323-502	ASM. BUTTON PAD - RIGHT
880324	PRODUCT MANUAL
880325	SERVICE MANUAL
880330	CLAMP RING
880334	CABLE TIE
880335-501	COLPOSCOPE SUB ASSY (NTSC)
900242-8	LABEL- BLANK

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880090-1	WIRE HARNESS, LEFT CONTROL
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880308-501	FOCUSING SLEEVE ASSEMBLY
880309	POLARIZATION FILTER - FIXED
880310	POLORIZATION FILTER ADJUSTABLE

Part Number	Description
880315	LAMP MOUNT
880316	CAP - WIRE HANDLE
880317-2	SONY CAMERA - PAL
880319	WIRE HARNESS - CAMERA
880320	WIRE HARNESS - FAN
880321	WIRE HARNESS - COMMUNICATIONS
880322	WIRE HARNESS, COLP HEAD
880323-501	ASM. BUTTON PAD - LEFT
880323-502	ASM. BUTTON PAD - RIGHT
880325	SERVICE MANUAL
880330	CLAMP RING
880332	PRODUCT MANUAL
880334	CABLE TIE
880335-502	COLPOSCOPE SUB ASSY (PAL)
900242-8	LABEL- BLANK

Part Number	Description
M11051	4 X 6 POLY BAG
M11478	PARTS LABEL
M13172	OFF WHITE TOUCH UP PAINT
M30345	LOCTITE RC/680 50 ML BOTTLE
M30372	LOCTITE 403
M30373	LOCTITE 425 ASSURE THDLOCKER
M30375	LOCTITE-222
M30383	MASTERBOND EP42HT EPOXY
M30385	ACCELERATOR
M31426	.032DIA ENERGIZED ROSIN SOLDER
M40162	91% ISOPROPYL ALCOHOL
106100-11	PHPS 4-40 X.312
106100-17	PHPS 2-56 X.312
106101-1	RETAINING RING
106101-19	LOCK RING
106102-21	FHPS #8-32 X .375
106102-22	#2-56 FHPS (BLK) X .250
106102-26	6-32 X .75 FHPS-BLACK"
106102-4	FHPS 6-32 X .375 LG
106102-7	FLAT HEAD SCREW
106103-21	WASHER
106103-28	WASHER, PIVOT
106103-29	WASHER,
106103-34	FLAT WASHER
106103-35	WASHER, PIVOT
106103-42	WASHER, FLAT .120 X .250 X.035
106105-3	#4 LOCKWASHER,HEL
106108-3	O-RING
106113-19	SET SCREW, 8-32 X.187 CONE
106113-6	#4-40 SOCKET SET SCREW
106120-5	6-32 X.375 FLSTR HD PLASTIC
106120-6	6-32 X.250 FILL; HD-BLK
106120-7	#4-40 X.375 FILHD PHPS
106121-18	.062 SHRINK TUBING
106121-19	.187 SHRINK TUBING
106123-18	SCREW M2 X 6MM
106124-18	#8 X 1.25 SELF TAPPING SCREW
106124-26	#6 X 2.00 PLASTITE TORX
106124-27	#6 X .375 PLASTITE TORX
106126-21	DOWEL PIN .062 X .375
106126-26	DOWEL PIN
106126-29	GROOVED PIN TYPE F .0938X.3125
106128-8	1/4 SPACER
106129-8	RING TERMINAL
106138-8	SCREW BUTTON HEAD
106140-10	.625 W/EXT WASHER
106140-2	4-40 W/EXT WASHER
106140-3	4-40 X.25 W/EXT WASHER
106142-15	SPRING WASHER
106148-1	2-56 X .437 W/INT WASHER
236686	SWITCH,SPDT,5A,BUTTON ACT SX-

Part Number	Description
265007	2-56 X 1/8 LG SET SCREW
483017	PHPS 6-32 X 5/16
488307-9	FUSE-1000 MA
495075	BALLAST SIDE CONN ASSY C12A003
745150	STRAIN RELIEF
761076-4	POWER CORD-DETCHBL(U.K)
761077-1	TIE WRAP
785012-1	SELF TAPPING SCREW .37
790043	4-40 X .250 HEX NUT
880031	POWER SUPPLY 40 WATT
880049	ON/OFF SWITCH
880051	CONNECTOR, D9 FEMALE
880058	2X CONVERTER
880059	ACHROMAT LENS
880060	GLASS ROD
880061	LAMP SPRING
880062	21W BALLAST (JR43205119-01)
880064	INSULATOR, BALLAST
880073-3	HSG, LEFT W/ MACHINED SLOT
880074-3	HOUSING, RIGHT PRINTED
880079	LAMP DOOR
880084	KNOB, COLP ATTACHMENT
880086	SHAFT, YAW BRAKE
880089-1	WIRE HARNESS RT CONTROL PAD
880090-1	WIRE HARNESS, LEFT CONTROL
880094	GRIP
880102-1	CONNECTOR, 4PIN
880106-501	PC BOARD, RS232
880108-3	STIFFENER, HANDLE (VERT)
880109-1	HOUSING, 4PIN
880109-2	HOUSING, 2PIN
880110	CONTACT PIN
880121	LATCH BLOCK KIT
880134	PIN, CONNECTOR
880137-503	CARTON, W/INSERTS, VERT
880158-501	SET, TRANSFORMER HSGS,MACH
880159-501	SET, HANDLES, VERT POLE
880164-501	TELEMED KEYPAD ASSY
880170	WIREHARNESS, R232-D9
880171-1	LABEL, BRIGHTNESS
880172	SVHS - WIRE HARNESS
880181	S-VIDEO CABLE
880250-501	ASSEMBLY, LIGHT DIRECTOR
880259-501	HARDWARE KIT
880260	KNOB, COLP
880264-501	VERTICAL POLE, REPLACEMENT
880302	FRAME COLPOSCOPE
880305-501	CAMERA LOGIC PC BOARD
880308-501	FOCUSING SLEEVE ASSEMBLY
880309	POLARIZATION FILTER - FIXED
880310	POLORIZATION FILTER ADJUSTABLE

Part Number	Description
880315	LAMP MOUNT
880316	CAP - WIRE HANDLE
880317-2	SONY CAMERA - PAL
880319	WIRE HARNESS - CAMERA
880320	WIRE HARNESS - FAN
880321	WIRE HARNESS - COMMUNICATIONS
880322	WIRE HARNESS, COLP HEAD
880323-501	ASM. BUTTON PAD - LEFT
880323-502	ASM. BUTTON PAD - RIGHT
880325	SERVICE MANUAL
880330	CLAMP RING
880332	PRODUCT MANUAL
880334	CABLE TIE
880335-502	COLPOSCOPE SUB ASSY (PAL)
900242-8	LABEL- BLANK

Part Number	Description
M11051	4 X 6 POLY BAG
M11478	PARTS LABEL
M13172	OFF WHITE TOUCH UP PAINT
M30345	LOCTITE RC/680 50 ML BOTTLE
M30372	LOCTITE 403
M30373	LOCTITE 425 ASSURE THDLOCKER
M30375	LOCTITE-222
M30383	MASTERBOND EP42HT EPOXY
M30385	ACCELERATOR
M31426	.032DIA ENERGIZED ROSIN SOLDER
M40162	91% ISOPROPYL ALCOHOL
106100-11	PHPS 4-40 X.312
106100-17	PHPS 2-56 X.312
106101-1	RETAINING RING
106101-19	LOCK RING
106102-21	FHPS #8-32 X .375
106102-22	#2-56 FHPS (BLK) X .250
106102-26	6-32 X .75 FHPS-BLACK"
106102-4	FHPS 6-32 X .375 LG
106102-7	FLAT HEAD SCREW
106103-21	WASHER
106103-28	WASHER, PIVOT
106103-29	WASHER,
106103-34	FLAT WASHER
106103-35	WASHER, PIVOT
106103-42	WASHER, FLAT .120 X .250 X.035
106105-3	#4 LOCKWASHER,HEL
106108-3	O-RING
106113-19	SET SCREW, 8-32 X.187 CONE
106113-6	#4-40 SOCKET SET SCREW
106120-5	6-32 X.375 FLSTR HD PLASTIC
106120-6	6-32 X.250 FILL; HD-BLK
106120-7	#4-40 X.375 FILHD PHPS
106121-18	.062 SHRINK TUBING
106121-19	.187 SHRINK TUBING
106123-18	SCREW M2 X 6MM
106124-18	#8 X 1.25 SELF TAPPING SCREW
106124-26	#6 X 2.00 PLASTITE TORX
106124-27	#6 X .375 PLASTITE TORX
106126-21	DOWEL PIN .062 X .375
106126-26	DOWEL PIN
106126-29	GROOVED PIN TYPE F .0938X.3125
106128-8	1/4 SPACER
106129-8	RING TERMINAL
106138-8	SCREW BUTTON HEAD
106140-10	.625 W/EXT WASHER
106140-2	4-40 W/EXT WASHER
106140-3	4-40 X.25 W/EXT WASHER
106142-15	SPRING WASHER
106148-1	2-56 X .437 W/INT WASHER
236686	SWITCH,SPDT,5A,BUTTON ACT SX-

Part Number	Description
265007	2-56 X 1/8 LG SET SCREW
483017	PHPS 6-32 X 5/16
488307-9	FUSE-1000 MA
495075	BALLAST SIDE CONN ASSY C12A003
745150	STRAIN RELIEF
761076-6	POWER CORD DETACH. (AUSTRALIA)
761077-1	TIE WRAP
785012-1	SELF TAPPING SCREW .37
790043	4-40 X .250 HEX NUT
880031	POWER SUPPLY 40 WATT
880049	ON/OFF SWITCH
880051	CONNECTOR, D9 FEMALE
880058	2X CONVERTER
880059	ACHROMAT LENS
880060	GLASS ROD
880061	LAMP SPRING
880062	21W BALLAST (JR43205119-01)
880064	INSULATOR, BALLAST
880073-3	HSG, LEFT W/ MACHINED SLOT
880074-3	HOUSING, RIGHT PRINTED
880079	LAMP DOOR
880084	KNOB, COLP ATTACHMENT
880086	SHAFT, YAW BRAKE
880089-1	WIRE HARNESS RT CONTROL PAD
880090-1	WIRE HARNESS, LEFT CONTROL
880094	GRIP
880102-1	CONNECTOR, 4PIN
880106-501	PC BOARD, RS232
880108-3	STIFFENER, HANDLE (VERT)
880109-1	HOUSING, 4PIN
880109-2	HOUSING, 2PIN
880110	CONTACT PIN
880121	LATCH BLOCK KIT
880134	PIN, CONNECTOR
880137-503	CARTON, W/INSERTS, VERT
880158-501	SET, TRANSFORMER HSGS,MACH
880159-501	SET, HANDLES, VERT POLE
880164-501	TELEMED KEYPAD ASSY
880170	WIREHARNESS, R232-D9
880171-1	LABEL, BRIGHTNESS
880172	SVHS - WIRE HARNESS
880181	S-VIDEO CABLE
880250-501	ASSEMBLY, LIGHT DIRECTOR
880259-501	HARDWARE KIT
880260	KNOB, COLP
880264-501	VERTICAL POLE, REPLACEMENT
880302	FRAME COLPOSCOPE
880305-501	CAMERA LOGIC PC BOARD
880308-501	FOCUSING SLEEVE ASSEMBLY
880309	POLARIZATION FILTER - FIXED
880310	POLORIZATION FILTER ADJUSTABLE

Part Number	Description
880315	LAMP MOUNT
880316	CAP - WIRE HANDLE
880317-2	SONY CAMERA - PAL
880319	WIRE HARNESS - CAMERA
880320	WIRE HARNESS - FAN
880321	WIRE HARNESS - COMMUNICATIONS
880322	WIRE HARNESS, COLP HEAD
880323-501	ASM. BUTTON PAD - LEFT
880323-502	ASM. BUTTON PAD - RIGHT
880325	SERVICE MANUAL
880330	CLAMP RING
880332	PRODUCT MANUAL
880334	CABLE TIE
880335-502	COLPOSCOPE SUB ASSY (PAL)
900242-8	LABEL- BLANK

Part Number	Description
A03656	TEST SPEC, COLP
M11041	MOLYKOTE 33 GREASE MED CON.
M11478	PARTS LABEL
M13172	OFF WHITE TOUCH UP PAINT
M13175	GRAY TOUCH UP PAINT PEN
M30328	LOCTITE 262-31
M30333	LOCTITE 495 SUPER BONDER
M30345	LOCTITE RC/680 50 ML BOTTLE
M30373	LOCTITE 425 ASSURE THDLOCKER
M30375	LOCTITE-222
M30383	MASTERBOND EP42HT EPOXY
M31426	.032DIA ENERGIZED ROSIN SOLDER
M40162	91% ISOPROPYL ALCOHOL
M40173	DOW CORNING 1122 GEAR GREASE
098100	LAMP ASSY (20W)
106100-11	PHPS 4-40 X.312
106100-17	PHPS 2-56 X.312
106101-1	RETAINING RING
106102-21	FHPS #8-32 X .375
106102-22	#2-56 FHPS (BLK) X .250
106102-24	6-32 X .250 FHPS"
106102-26	6-32 X .75 FHPS-BLACK"
106102-4	FHPS 6-32 X .375 LG
106103-28	WASHER, PIVOT
106103-34	FLAT WASHER
106103-35	WASHER, PIVOT
106103-42	WASHER, FLAT .120 X .250 X.035
106106-2	#4 INTRNL TOOTH LOCKWASHER
106108-3	O-RING
106113-19	SET SCREW, 8-32 X.187 CONE
106113-6	#4-40 SOCKET SET SCREW
106120-5	6-32 X.375 FLSTR HD PLASTIC
106120-6	6-32 X.250 FILL; HD-BLK
106121-18	.062 SHRINK TUBING
106121-19	.187 SHRINK TUBING
106124-26	#6 X 2.00 PLASTITE TORX
106124-27	#6 X .375 PLASTITE TORX
106124-5	#4 X.625 LG PPHS SELF TPG
106126-21	DOWEL PIN .062 X .375
106126-26	DOWEL PIN
106128-8	1/4 SPACER
106140-2	4-40 W/EXT WASHER
106148-1	2-56 X .437 W/INT WASHER
761076-0	POWER CORD, DETACH.(DOM/JAPAN)
761077-1	TIE WRAP
880006-3	PIVOT, PITCH FINISHED
880007-3	HUB, POWDER COATED FINISHED
880009-4	MOUNT, COLP PAINTED
880010	SHAFT, PITCH BRAKE
880011	BRAKE PAD
880012	BRAKE, STATIONARY

Part Number	Description
880013	SLEEVE, BRAKE
880015-3	SLEEVE, HUB FINISHED
880022-1	SHAFT, COLP ATTACHMENT
880061	LAMP SPRING
880062	21W BALLAST (JR43205119-01)
880073-3	HSG, LEFT W/ MACHINED SLOT
880074-4	HSG, RIGHT W/MACHINED SLOT
880079	LAMP DOOR
880086	SHAFT, YAW BRAKE
880089-1	WIRE HARNESS RT CONTROL PAD
880090-1	WIRE HARNESS, LEFT CONTROL
880094	GRIP
880102-1	CONNECTOR, 4PIN
880135	WARRANTY CARD
880171-1	LABEL, BRIGHTNESS
880181	S-VIDEO CABLE
880191	STOP, MICROSWITCH
880250-501	ASSEMBLY, LIGHT DIRECTOR
880260	KNOB, COLP
880263	COLP QUICK REF GUIDE
880302	FRAME COLPOSCOPE
880305-501	CAMERA LOGIC PC BOARD
880308-501	FOCUSING SLEEVE ASSEMBLY
880309	POLARIZATION FILTER - FIXED
880310	POLORIZATION FILTER ADJUSTABLE
880314	WIRE FORM HANDLE
880315	LAMP MOUNT
880316	CAP - WIRE HANDLE
880317-1	SONY CAMERA - NTSC
880319	WIRE HARNESS - CAMERA
880320	WIRE HARNESS - FAN
880321	WIRE HARNESS - COMMUNICATIONS
880322	WIRE HARNESS, COLP HEAD
880323-501	ASM. BUTTON PAD - LEFT
880323-502	ASM. BUTTON PAD - RIGHT
880324	PRODUCT MANUAL
880330	CLAMP RING
880335-501	COLPOSCOPE SUB ASSY (NTSC)
890035-502	CARTON W/INSERTS, SWING ARM
890039-501	SET, HANDLES, SWING ARM
900242-8	LABEL- BLANK

Part Number	Description
A03656	TEST SPEC, COLP
M11041	MOLYKOTE 33 GREASE MED CON.
M11478	PARTS LABEL
M13172	OFF WHITE TOUCH UP PAINT
M13175	GRAY TOUCH UP PAINT PEN
M30328	LOCTITE 262-31
M30333	LOCTITE 495 SUPER BONDER
M30345	LOCTITE RC/680 50 ML BOTTLE
M30373	LOCTITE 425 ASSURE THDLOCKER
M30375	LOCTITE-222
M30383	MASTERBOND EP42HT EPOXY
M31426	.032DIA ENERGIZED ROSIN SOLDER
M40162	91% ISOPROPYL ALCOHOL
M40173	DOW CORNING 1122 GEAR GREASE
098100	LAMP ASSY (20W)
106100-11	PHPS 4-40 X.312
106100-17	PHPS 2-56 X.312
106101-1	RETAINING RING
106102-21	FHPS #8-32 X .375
106102-22	#2-56 FHPS (BLK) X .250
106102-24	6-32 X .250 FHPS"
106102-26	6-32 X .75 FHPS-BLACK"
106102-4	FHPS 6-32 X .375 LG
106103-28	WASHER, PIVOT
106103-34	FLAT WASHER
106103-35	WASHER, PIVOT
106103-42	WASHER, FLAT .120 X .250 X.035
106106-2	#4 INTRNL TOOTH LOCKWASHER
106108-3	O-RING
106113-19	SET SCREW, 8-32 X.187 CONE
106113-6	#4-40 SOCKET SET SCREW
106120-5	6-32 X.375 FLSTR HD PLASTIC
106120-6	6-32 X.250 FILL; HD-BLK
106121-18	.062 SHRINK TUBING
106121-19	.187 SHRINK TUBING
106124-26	#6 X 2.00 PLASTITE TORX
106124-27	#6 X .375 PLASTITE TORX
106124-5	#4 X.625 LG PPHS SELF TPG
106126-21	DOWEL PIN .062 X .375
106126-26	DOWEL PIN
106128-8	1/4 SPACER
106140-2	4-40 W/EXT WASHER
106148-1	2-56 X .437 W/INT WASHER
761076-2	POWER CORD-DETACH (EUROPEAN)
761077-1	TIE WRAP
880006-3	PIVOT, PITCH FINISHED
880007-3	HUB, POWDER COATED FINISHED
880009-4	MOUNT, COLP PAINTED
880010	SHAFT, PITCH BRAKE
880011	BRAKE PAD
880012	BRAKE, STATIONARY

Part Number	Description
880013	SLEEVE, BRAKE
880015-3	SLEEVE, HUB FINISHED
880022-1	SHAFT, COLP ATTACHMENT
880061	LAMP SPRING
880062	21W BALLAST (JR43205119-01)
880073-3	HSG, LEFT W/ MACHINED SLOT
880074-4	HSG, RIGHT W/MACHINED SLOT
880079	LAMP DOOR
880086	SHAFT, YAW BRAKE
880089-1	WIRE HARNESS RT CONTROL PAD
880090-1	WIRE HARNESS, LEFT CONTROL
880094	GRIP
880102-1	CONNECTOR, 4PIN
880135	WARRANTY CARD
880171-1	LABEL, BRIGHTNESS
880181	S-VIDEO CABLE
880191	STOP, MICROSWITCH
880250-501	ASSEMBLY, LIGHT DIRECTOR
880260	KNOB, COLP
880263	COLP QUICK REF GUIDE
880302	FRAME COLPOSCOPE
880305-501	CAMERA LOGIC PC BOARD
880308-501	FOCUSING SLEEVE ASSEMBLY
880309	POLARIZATION FILTER - FIXED
880310	POLORIZATION FILTER ADJUSTABLE
880314	WIRE FORM HANDLE
880315	LAMP MOUNT
880316	CAP - WIRE HANDLE
880317-2	SONY CAMERA - PAL
880319	WIRE HARNESS - CAMERA
880320	WIRE HARNESS - FAN
880321	WIRE HARNESS - COMMUNICATIONS
880322	WIRE HARNESS, COLP HEAD
880323-501	ASM. BUTTON PAD - LEFT
880323-502	ASM. BUTTON PAD - RIGHT
880325	SERVICE MANUAL
880330	CLAMP RING
880332	PRODUCT MANUAL
880335-502	COLPOSCOPE SUB ASSY (PAL)
890035-502	CARTON W/INSERTS, SWING ARM
890039-501	SET, HANDLES, SWING ARM
900242-8	LABEL- BLANK

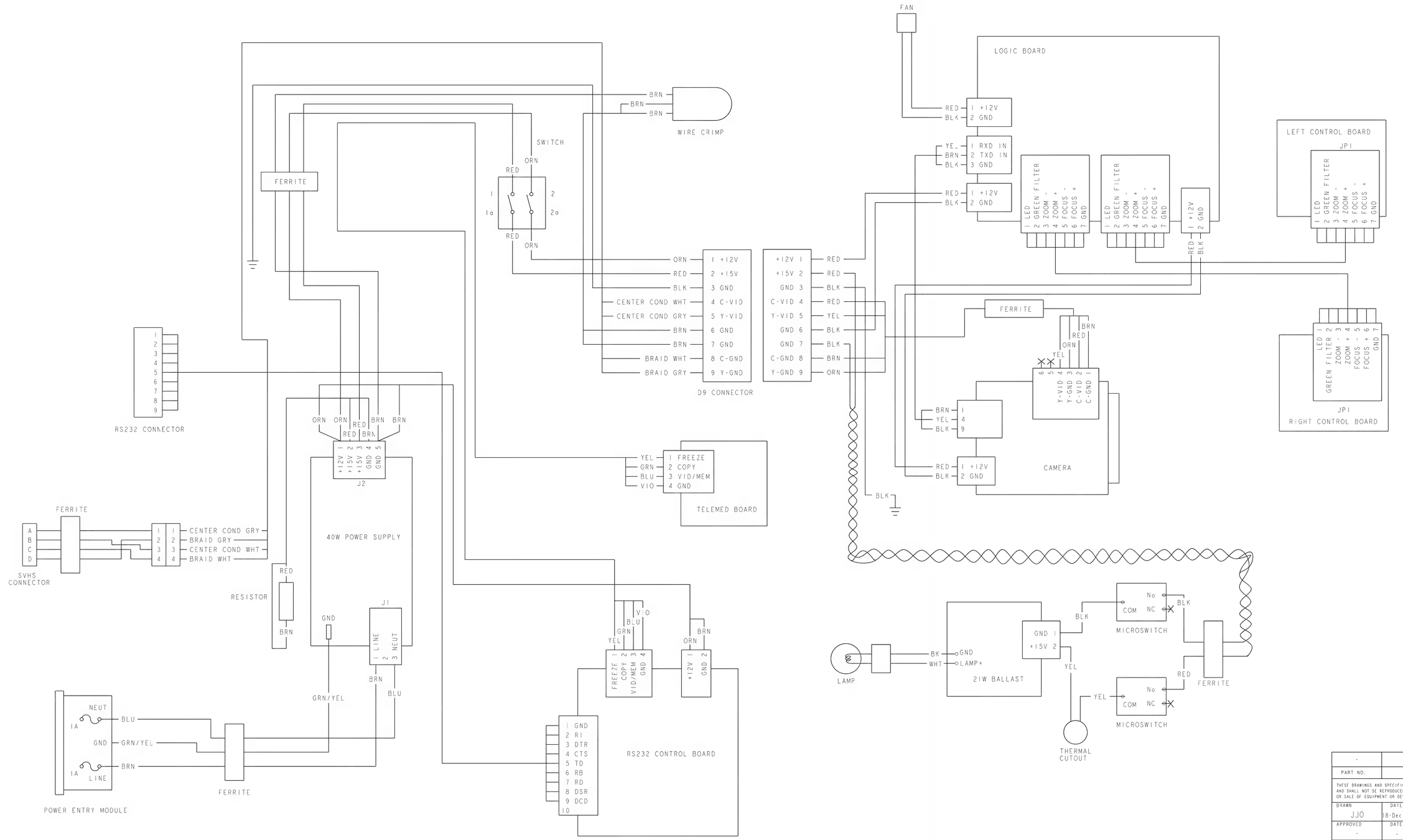
Part Number	Description
A03656	TEST SPEC, COLP
M11041	MOLYKOTE 33 GREASE MED CON.
M11478	PARTS LABEL
M13172	OFF WHITE TOUCH UP PAINT
M13175	GRAY TOUCH UP PAINT PEN
M30328	LOCTITE 262-31
M30333	LOCTITE 495 SUPER BONDER
M30345	LOCTITE RC/680 50 ML BOTTLE
M30373	LOCTITE 425 ASSURE THDLOCKER
M30375	LOCTITE-222
M30383	MASTERBOND EP42HT EPOXY
M31426	.032DIA ENERGIZED ROSIN SOLDER
M40162	91% ISOPROPYL ALCOHOL
M40173	DOW CORNING 1122 GEAR GREASE
098100	LAMP ASSY (20W)
106100-11	PHPS 4-40 X.312
106100-17	PHPS 2-56 X.312
106101-1	RETAINING RING
106102-21	FHPS #8-32 X .375
106102-22	#2-56 FHPS (BLK) X .250
106102-24	6-32 X .250 FHPS"
106102-26	6-32 X .75 FHPS-BLACK"
106102-4	FHPS 6-32 X .375 LG
106103-28	WASHER, PIVOT
106103-34	FLAT WASHER
106103-35	WASHER, PIVOT
106103-42	WASHER, FLAT .120 X .250 X.035
106106-2	#4 INTRNL TOOTH LOCKWASHER
106108-3	O-RING
106113-19	SET SCREW, 8-32 X.187 CONE
106113-6	#4-40 SOCKET SET SCREW
106120-5	6-32 X.375 FLSTR HD PLASTIC
106120-6	6-32 X.250 FILL; HD-BLK
106121-18	.062 SHRINK TUBING
106121-19	.187 SHRINK TUBING
106124-26	#6 X 2.00 PLASTITE TORX
106124-27	#6 X .375 PLASTITE TORX
106124-5	#4 X.625 LG PPHS SELF TPG
106126-21	DOWEL PIN .062 X .375
106126-26	DOWEL PIN
106128-8	1/4 SPACER
106140-2	4-40 W/EXT WASHER
106148-1	2-56 X .437 W/INT WASHER
761076-4	POWER CORD-DETCHBL(U.K)
761077-1	TIE WRAP
880006-3	PIVOT, PITCH FINISHED
880007-3	HUB, POWDER COATED FINISHED
880009-4	MOUNT, COLP PAINTED
880010	SHAFT, PITCH BRAKE
880011	BRAKE PAD
880012	BRAKE, STATIONARY

Part Number	Description
880013	SLEEVE, BRAKE
880015-3	SLEEVE, HUB FINISHED
880022-1	SHAFT, COLP ATTACHMENT
880061	LAMP SPRING
880062	21W BALLAST (JR43205119-01)
880073-3	HSG, LEFT W/ MACHINED SLOT
880074-4	HSG, RIGHT W/MACHINED SLOT
880079	LAMP DOOR
880086	SHAFT, YAW BRAKE
880089-1	WIRE HARNESS RT CONTROL PAD
880090-1	WIRE HARNESS, LEFT CONTROL
880094	GRIP
880102-1	CONNECTOR, 4PIN
880135	WARRANTY CARD
880171-1	LABEL, BRIGHTNESS
880181	S-VIDEO CABLE
880191	STOP, MICROSWITCH
880250-501	ASSEMBLY, LIGHT DIRECTOR
880260	KNOB, COLP
880263	COLP QUICK REF GUIDE
880302	FRAME COLPOSCOPE
880305-501	CAMERA LOGIC PC BOARD
880308-501	FOCUSING SLEEVE ASSEMBLY
880309	POLARIZATION FILTER - FIXED
880310	POLORIZATION FILTER ADJUSTABLE
880314	WIRE FORM HANDLE
880315	LAMP MOUNT
880316	CAP - WIRE HANDLE
880317-2	SONY CAMERA - PAL
880319	WIRE HARNESS - CAMERA
880320	WIRE HARNESS - FAN
880321	WIRE HARNESS - COMMUNICATIONS
880322	WIRE HARNESS, COLP HEAD
880323-501	ASM. BUTTON PAD - LEFT
880323-502	ASM. BUTTON PAD - RIGHT
880325	SERVICE MANUAL
880330	CLAMP RING
880332	PRODUCT MANUAL
880335-502	COLPOSCOPE SUB ASSY (PAL)
890035-502	CARTON W/INSERTS, SWING ARM
890039-501	SET, HANDLES, SWING ARM
900242-8	LABEL- BLANK

Part Number	Description
A03656	TEST SPEC, COLP
M11041	MOLYKOTE 33 GREASE MED CON.
M11478	PARTS LABEL
M13172	OFF WHITE TOUCH UP PAINT
M13175	GRAY TOUCH UP PAINT PEN
M30328	LOCTITE 262-31
M30333	LOCTITE 495 SUPER BONDER
M30345	LOCTITE RC/680 50 ML BOTTLE
M30373	LOCTITE 425 ASSURE THDLOCKER
M30375	LOCTITE-222
M30383	MASTERBOND EP42HT EPOXY
M31426	.032DIA ENERGIZED ROSIN SOLDER
M40162	91% ISOPROPYL ALCOHOL
M40173	DOW CORNING 1122 GEAR GREASE
098100	LAMP ASSY (20W)
106100-11	PHPS 4-40 X.312
106100-17	PHPS 2-56 X.312
106101-1	RETAINING RING
106102-21	FHPS #8-32 X .375
106102-22	#2-56 FHPS (BLK) X .250
106102-24	6-32 X .250 FHPS"
106102-26	6-32 X .75 FHPS-BLACK"
106102-4	FHPS 6-32 X .375 LG
106103-28	WASHER, PIVOT
106103-34	FLAT WASHER
106103-35	WASHER, PIVOT
106103-42	WASHER, FLAT .120 X .250 X.035
106106-2	#4 INTRNL TOOTH LOCKWASHER
106108-3	O-RING
106113-19	SET SCREW, 8-32 X.187 CONE
106113-6	#4-40 SOCKET SET SCREW
106120-5	6-32 X.375 FLSTR HD PLASTIC
106120-6	6-32 X.250 FILL; HD-BLK
106121-18	.062 SHRINK TUBING
106121-19	.187 SHRINK TUBING
106124-26	#6 X 2.00 PLASTITE TORX
106124-27	#6 X .375 PLASTITE TORX
106124-5	#4 X.625 LG PPHS SELF TPG
106126-21	DOWEL PIN .062 X .375
106126-26	DOWEL PIN
106128-8	1/4 SPACER
106140-2	4-40 W/EXT WASHER
106148-1	2-56 X .437 W/INT WASHER
761076-6	POWER CORD DETACH. (AUSTRALIA)
761077-1	TIE WRAP
880006-3	PIVOT, PITCH FINISHED
880007-3	HUB, POWDER COATED FINISHED
880009-4	MOUNT, COLP PAINTED
880010	SHAFT, PITCH BRAKE
880011	BRAKE PAD
880012	BRAKE, STATIONARY

Part Number	Description
880013	SLEEVE, BRAKE
880015-3	SLEEVE, HUB FINISHED
880022-1	SHAFT, COLP ATTACHMENT
880061	LAMP SPRING
880062	21W BALLAST (JR43205119-01)
880073-3	HSG, LEFT W/ MACHINED SLOT
880074-4	HSG, RIGHT W/MACHINED SLOT
880079	LAMP DOOR
880086	SHAFT, YAW BRAKE
880089-1	WIRE HARNESS RT CONTROL PAD
880090-1	WIRE HARNESS, LEFT CONTROL
880094	GRIP
880102-1	CONNECTOR, 4PIN
880135	WARRANTY CARD
880171-1	LABEL, BRIGHTNESS
880181	S-VIDEO CABLE
880191	STOP, MICROSWITCH
880250-501	ASSEMBLY, LIGHT DIRECTOR
880260	KNOB, COLP
880263	COLP QUICK REF GUIDE
880302	FRAME COLPOSCOPE
880305-501	CAMERA LOGIC PC BOARD
880308-501	FOCUSING SLEEVE ASSEMBLY
880309	POLARIZATION FILTER - FIXED
880310	POLORIZATION FILTER ADJUSTABLE
880314	WIRE FORM HANDLE
880315	LAMP MOUNT
880316	CAP - WIRE HANDLE
880317-2	SONY CAMERA - PAL
880319	WIRE HARNESS - CAMERA
880320	WIRE HARNESS - FAN
880321	WIRE HARNESS - COMMUNICATIONS
880322	WIRE HARNESS, COLP HEAD
880323-501	ASM. BUTTON PAD - LEFT
880323-502	ASM. BUTTON PAD - RIGHT
880325	SERVICE MANUAL
880330	CLAMP RING
880332	PRODUCT MANUAL
880335-502	COLPOSCOPE SUB ASSY (PAL)
890035-502	CARTON W/INSERTS, SWING ARM
890039-501	SET, HANDLES, SWING ARM
900242-8	LABEL- BLANK

REV	DESCRIPTION	ECN/ECO	INIT	DATE	CKD
A	REL TO PROD ENG	-	-	-	-



-	-
PART NO.	DESCRIPTION

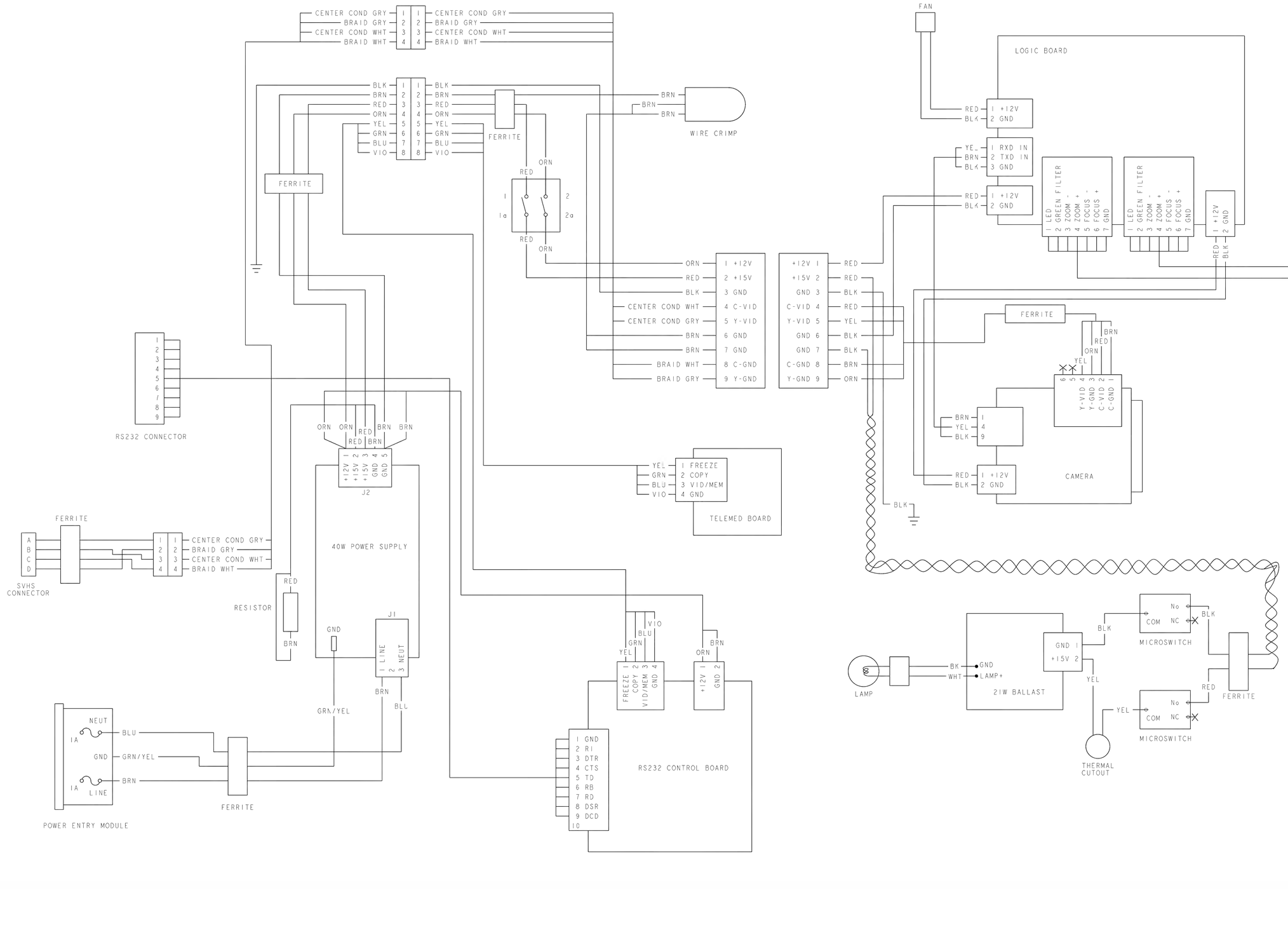
THESE DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF WELCH ALLYN, INC. AND SHALL NOT BE REPRODUCED, OR COPIED, OR USED AS A BASIS FOR MANUFACTURE OR SALE OF EQUIPMENT OR DEVICES WITHOUT WRITTEN PERMISSION.

DRAWN: JJO	DATE: 18-Dec-00	Welch Allyn®
APPROVED: -	DATE: -	MATERIAL: -
REL TO PROD: -	DATE: -	FINISH: -
-	-	TITLE: INTERCONNECT DIAGRAM VERT
CAD SOFTWARE:	PRO-E	
TRANSLATED FROM:		

UNLESS OTHERWISE SPECIFIED
TOLERANCES ARE IN INCHES
.XX = ± .02
.XXX = ± .005
ANGLES ±2°

D	DRAWING NO. 880326	REV X2
	SCALE	SHEET 1 of 1

REV	DESCRIPTION	ECN/ECO	INIT	DATE	CKD
A	REL TO PROD ENG	-	-	-	-

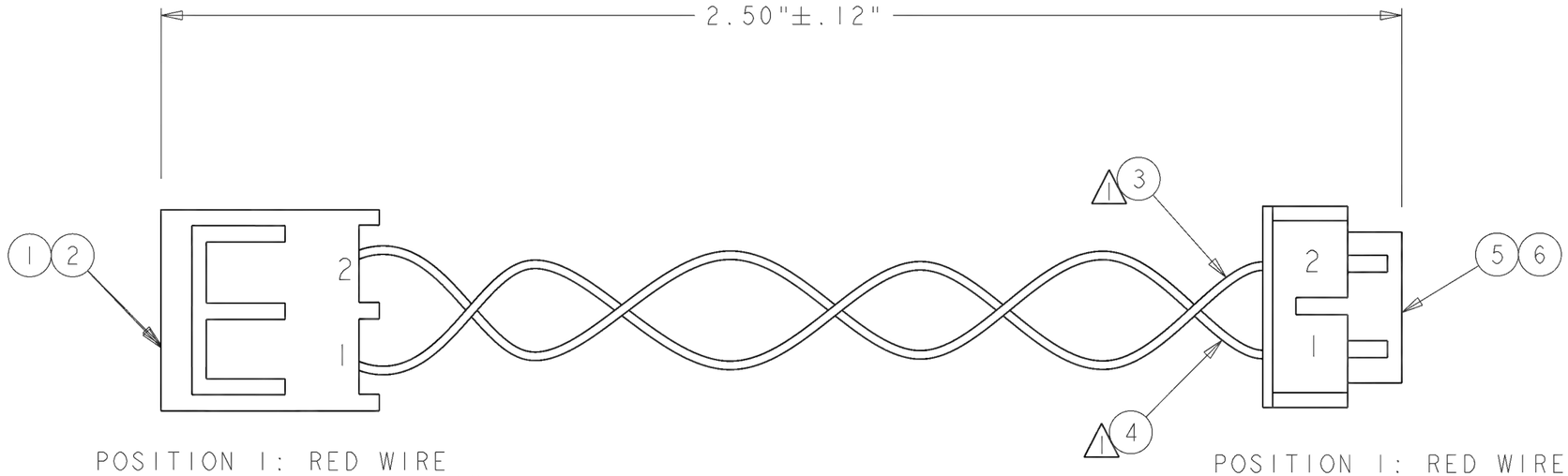


-	-
PART NO.	DESCRIPTION

THESE DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF WELCH ALLYN, INC. AND SHALL NOT BE REPRODUCED, OR COPIED, OR USED AS A BASIS FOR MANUFACTURE OR SALE OF EQUIPMENT OR DEVICES WITHOUT WRITTEN PERMISSION.

DRAWN: JJO	DATE: 18-Dec-00	Welch Allyn®
APPROVED: -	DATE: -	MATERIAL: -
REL TO PROD: -	DATE: -	FINISH: -
-	-	TITLE: INTERCONNECT DIAGRAM SWING ARM
CAD SOFTWARE: PRO-E		
TRANSLATED FROM:		
UNLESS OTHERWISE SPECIFIED TOLERANCES .XX = ±.02 .XXX = ±.005 ANGLES ±2° DIMENSIONS ARE IN INCHES		DRAWING NO. D 8900/1 REV X2
		SCALE SHEET 1 of 1

REV	DESCRIPTION	ECN/ECO	INIT	DATE	CKD
A	RELEASE TO PRODUCTION ENG	5-42108	TJS	10/11/00	SGS



POSITION 1: RED WIRE
POSITION 2: BLACK WIRE

POSITION 1: RED WIRE
POSITION 2: BLACK WIRE

NOTE:

⚠1 APPROX. 4 TURNS/ INCH

ITEM	QTY	DESCRIPTION
1	1	MOLEX CONTACT HOUSING, P/N 10-01-4024
2	2	MOLEX CRIMP TERMINAL, P/N:08-70-0073 LOOSE,08-70-0072 CHAIN
3	A/R	BLACK WIRE,26AWG 300V INSULATION
4	A/R	RED WIRE, 26 AWG 300V INSULATION
5	1	JST CONTACT HOUSING, P/N:ZHR-2
6	2	JST CONTACT CRIMP, P/N: SZH-003T-P0.5

-	-
PART NO.	DESCRIPTION

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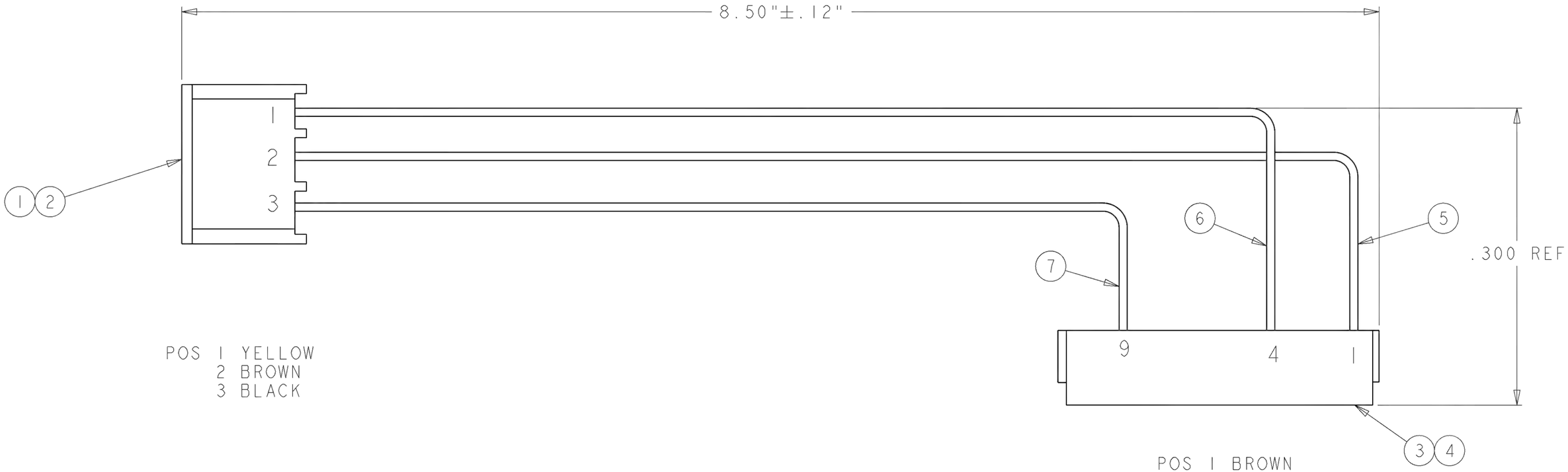
DRAWN: TJS	DATE: 14-Sep-00	Welch Allyn®
APPROVED: SGS	DATE: 10/11/00	MATERIAL: SEE NOTES
REL TO PROD: RPD	DATE: 10/12/00	FINISH: N/A
-	-	TITLE: WIRE HARNESS, CAMERA POWER
CAD SOFTWARE:	PRO-E	
TRANSLATED FROM:	ANVIL	

UNLESS OTHERWISE SPECIFIED
TOLERANCES: .XX = ±.02, .XXX = ±.005, ANGLES ±2°
DIMENSIONS ARE IN INCHES

SIZE	DRAWING NO.	REV
B	880319	A
SCALE: DRAWING SCALE	SHEET 1 of 1	

REV	DESCRIPTION	ECN/ECO	INIT	DATE	CKD
A	RELEASE TO PRODUCTION ENG	5-42108	TJS	10/11/00	SGS



POS 1 YELLOW
2 BROWN
3 BLACK

POS 1 BROWN
4 YELLOW
9 BLACK

ITEM	QTY	DESCRIPTION
1	1	MOLEX CONTACT HOUSING, P/N 10-01-4034
2	3	MOLEX CRIMP TERMINAL, P/N:08-70-0073 LOOSE,08-70-0072 CHAIN
3	1	JST CONTACT HOUSING, P/N: ZHR-10
4	3	JST CONTACT CRIMP, P/N: SZH-003T-P0.5
5	A/R	BROWN WIRE, 26 AWG 300V INSULATION
6	A/R	YELLOW WIRE, 26 AWG 300V INSULATION
7	A/R	BLACK WIRE, 26 AWG 300V INSULATION

-	-
PART NO.	DESCRIPTION

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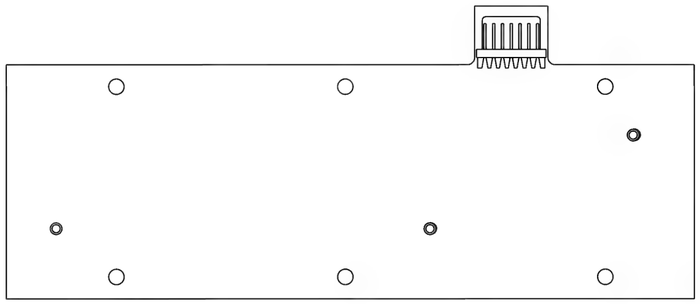
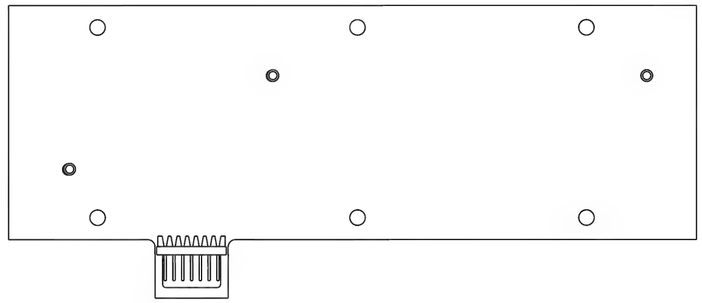
DRAWN: TJS	DATE: 14-Sep-00	Welch Allyn®
APPROVED: SGS	DATE: 10/11/00	MATERIAL: N/A
REL TO PROD: RPD	DATE: 10/12/00	FINISH: N/A
-	-	TITLE: WIRE HARNESS, COMMUNICATION
CAD SOFTWARE:	PRO-E	
TRANSLATED FROM:	ANVIL	

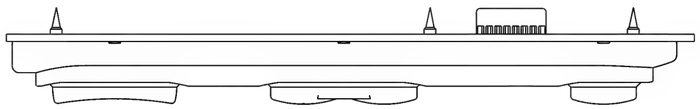
UNLESS OTHERWISE SPECIFIED
TOLERANCES .XX = ±.02 .XXX = ±.005 ANGLES ±2°
DIMENSIONS ARE IN INCHES

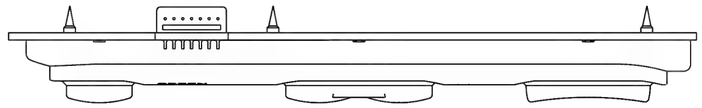
SIZE	DRAWING NO.	REV
B	880321	A
SCALE: DRAWING SCALE	SHEET 1 of 1	

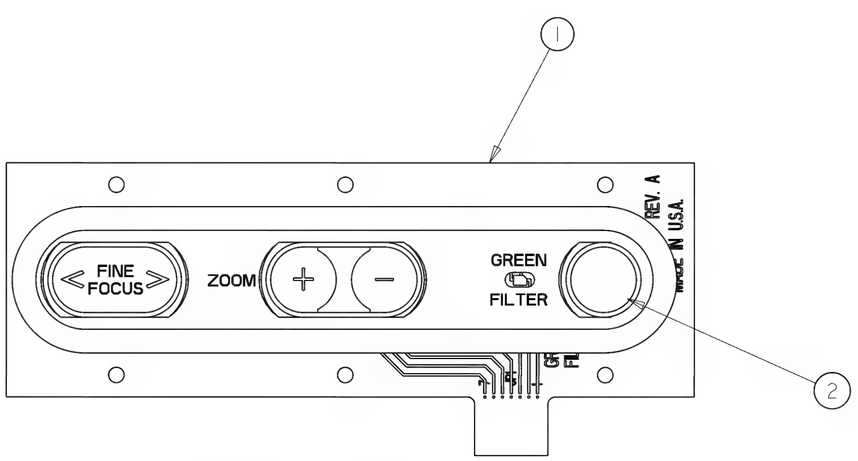
REV	DESCRIPTION	ECN/ECO	INIT	DATE	CKD
A	RELEASE TO PRODUCTION	5-42108	TJS	10/11/00	SGS



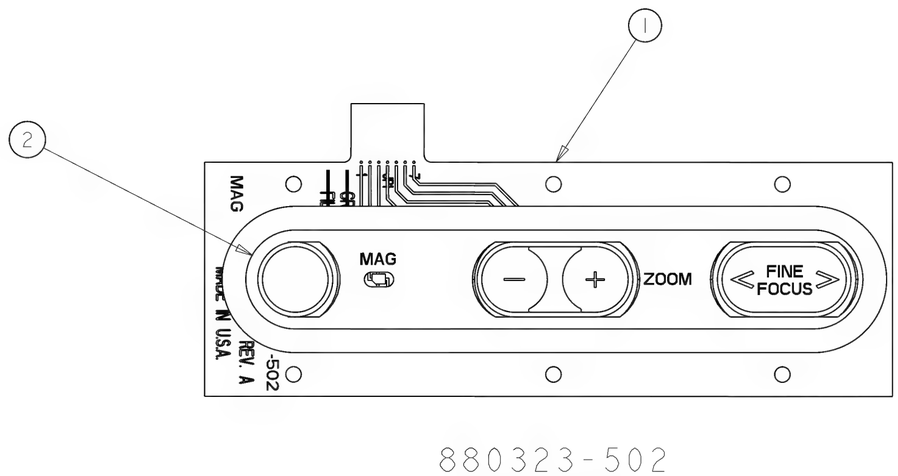








880323-501
LEFT



880323-502
RIGHT

NOTES:

1. ALL KEYPADS TO BE 100% TESTED FOR ELECTRICAL INTEGRITY (SHORTS - RESISTANCE <10M OHM AND OPENS - RESISTANCE >300 OHM) BY SUPPLIER.

2. SUGGESTED VENDOR: CONDUCTIVE RUBBER TECHNOLOGY
   22125 17TH. AVE., SE#117
   BOTHELL, WA. 98021

880323-502	ASSY, BUTTON BOARD RIGHT
880323-501	ASSY, BUTTON BOARD LEFT
PART NO.	DESCRIPTION

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DRAWN: PJB	DATE: 18-Sep-00	Welch Allyn®
APPROVED: SGS	DATE: 10/11/00	MATERIAL: -
REL TO PROD: RPD	DATE: 10/12/00	FINISH: -
-	-	TITLE: ASSEMBLY BUTTON BOARD
CAD SOFTWARE:	PRO-E	
TRANSLATED FROM:		

UNLESS OTHERWISE SPECIFIED
TOLERANCES DIMENSIONS ARE IN INCHES
.XX = ±.02
.XXX = ±.005
ANGLES ±2°

C	DRAWING NO. 880323	REV A
SCALE 1:1	SHEET 1 of 1	

REV	DESCRIPTION	ECN/ECO	INIT	DATE	CKD
A	RELEASE TO PRODUCTION	5-42130	JJO	10/13/00	PJB

R2 100K — Spare_A — TP6
R1 100K — Spare_B — TP5
VCC
R102 10K, R103 10K, R104 10K, R105 10K, R106 10K
R107 300
J1: 1 Green_Led, 2 Green_Filter, 3 Zoom-, 4 Zoom+, 5 Focus-, 6 Focus+, 7
7PIN RIGHT ANGLE

VCC
R108 10K, R109 10K, R110 10K, R111 10K, R112 10K
R113 300
J2: 1 Green_Led_L, 2 Green_Filter_L, 3 Zoom-L, 4 Zoom+L, 5 Focus-L, 6 Focus+L, 7
7PIN RIGHT ANGLE

MAX809: 3 VCC, 2 RES, GND 1
C100 .1UF
RST-LO
R100 100K
R101 2.2K
VCC
RESET-LO

JP5 STMM_105_02_G_D HEADER 5X2 PROGRAMMING
VPP VCC
RXD — WRES* — CRES* — TXD
P-MODE — MDx — TEST
RESET*

U100 H8/3642
VCC 33, AVCC 58
RES 10
X1 6
X2 5
OSC1 8 — OSC1
OSC2 9 — OSC2
IRQ0 16
R139 10M
Y1 8MHZ
C102 22PF, C103 22PF
R131 22K
Green_Filter, Zoom-, Zoom+, Focus-, Focus+ (P1_0/TMOW, P1_4/PWM, P1_5/IRQ1, P1_6/IRQ2, P1_7/IRQ3/TRGV)
RXD — P2_0/SCK3, P2_1/RXD
TXD — P2_2/TXD
FG-VID-SELECT, CV-OUT-SELECT, Y/C-OUT-SELECT (P3_0/SCK1, P3_1/SI1, P3_2/SO1)
R122 22K, R123 22K, R124 22K, R125 10K
P5_0/INT0 … P5_7/INT7
PB_7/AN7 … PB_0/AN0 — PB-1, PB-0
R121 10K
R10 1K
R129 22K, R130 22K
C101 .1UF
Green_Led, Green_Led_L — P6_0, P6_1
P-MODE
R126 10K — P6, R127 10K, R128 10K
BAL-OFF — P7_3
P7_4/TMRIV, P7_5/TMCIV, P7_6/TMOV, P7_7
P8_7 … P8_0/FTCI — Green_Filter_, Mag_Display, Zoom-L, Zoom+L, Focus-L, Focus+L, Spare_A, Spare_B
P9_4 … P9_0/FVPP
VPP5V
VPP
TEST — R120 10K
VSS, AVSS

D101 MMBD914
VPP3
R114 1K
VPP
+12V
Q100 FMMT718
VPP2
R116 10K
R118 12.1K
+12V-SENS
R117 10K
R119 5.62K
R115 22K
C104 .1UF
C105 1UF
Q101 BCR133
VPP1
10K

POWER IN
J9 2PIN RA HEADER
J8 2PIN RA HEADER
J7 2PIN RA HEADER
J6 2PIN RA HEADER
+5V — JP1 — VCC
+12V
U102 LP2981IM5X-5.0: VIN, GND, ON/OFF, VOUT, NC
C4 22UF
C3 4.7UF
TP3
TP4

U17 LTI38I RS-232 TRANS.
VCC, V+, GND, C1-, C1+, C2-, C2+, V-
TRI N, TR2 N, REC1 OUT, REC2 OUT
TRI OUT, TR2 OUT, REC1 IN, REC2 IN
C170 1UF, C171 1UF, V232+
C172 .1UF, C173 .1UF, C174 1UF
TP1 — TXD
TP2 — RXD
J3 CONNECTOR-3

MNT1 MOUNTI25, MNT2 MOUNTI25, MNT3 MOUNTI25, MNT4 MOUNTI25
CHASSIS, CHASSIS, CHASSIS, CHASSIS
FID1 FIDUCIAL, FID2 FIDUCIAL

-	-
PART NO.	DESCRIPTION

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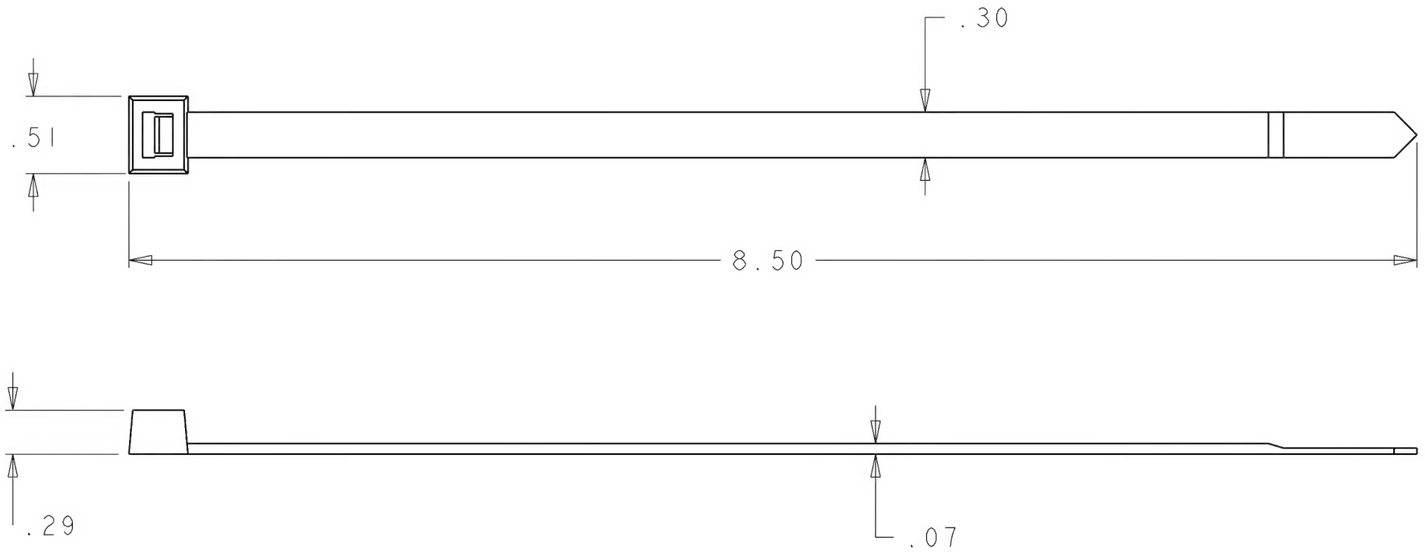
DRAWN JJO	DATE 27-Sep-00	Welch Allyn®
APPROVED PJB	DATE 10/16/00	MATERIAL: -
REL TO PROD RPD	DATE 10/16/00	FINISH: -
-	-	TITLE: SCHEMATIC, CAMERA LOGIC BOARD
CAD SOFTWARE:	PRO-E	
TRANSLATED FROM:		

UNLESS OTHERWISE SPECIFIED
TOLERANCES .XX = ±.02 .XXX = ±.005 ANGLES ±2°
DIMENSIONS ARE IN INCHES

	DRAWING NO.	REV
C	880311	A
SCALE NONE	SHEET 1 of 1	

REV	DESCRIPTION	ECN/ECO	INIT	DATE	CKD
A	RELEASE TO PRODUCTION	5-42239	PJB	11/3/00	SGS
B	REMOVED QTY/PACKAGE IN NOTE 1	5-42374	PJB	12/1/00	SGS



NOTES:

(B) 1. MANUFACTURER AND PART NUMBER
RICHCO, P/N WIT-120S

2. DIMENSIONS ARE FOR REFERENCE ONLY.

3. ENGINEERING APPROVAL IS REQUIRED PRIOR TO USING "EQUIVALENT" PARTS.

-	-
PART NO.	DESCRIPTION

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DRAWN: PJB	DATE: 01-Nov-00	Welch Allyn®
APPROVED: SGS	DATE: 11/3/00	MATERIAL: -
REL TO PROD: RPD	DATE: 11/3/00	FINISH: -
-	-	TITLE: CABLE TIE
CAD SOFTWARE:	PRO-E	
TRANSLATED FROM:		

UNLESS OTHERWISE SPECIFIED
TOLERANCES DIMENSIONS
.XX = ±.02 ARE IN
.XXX = ±.005 INCHES
ANGLES ±2°

B	DRAWING NO. 880334	REV B
SCALE 1.000	SHEET 1 of 1	

Welch Allyn International Product Service Centers

Product Service Center	*Region*	*Product Families*
America *(North, Central & South)*		
Welch Allyn, Inc. 4341 State Street Road Skaneateles Falls, NY 13153-0220, USA tel: 1-800-535-6663 1-315-685-4100 fax: 1-315-685-3361 e-mail: Ozminkowskig@mail.welchallyn.com Contact: Gary Ozminkowski	United States	All Medical Products except Diatek, GSI, Tycos, Schiller, Everest and Imaging products manufactured at the Jordan Road plant.
Welch Allyn, Inc. Jordan Road Plant 4619 Jordan Road Skaneateles Falls, NY 13153-0220, USA tel: 1-800-535-6663 1-315-685-4108 fax: 1-315-685-2920 Contacts: Terri Colvin / Kevin Streeter	United States	All Imaging Products (Video Products), including Surgical, Everest, Reveal dental and HP.
Welch Allyn, Inc. Arden Operation 95 Old Shoals Road Arden NC 28704, USA tel: 1- 800-450-9275 1- 828-684-4895 fax: 1- 828-687-9323 Contact: Chris Pruett	United States	All Tycos Products including ABPM, Vital Signs Monitor, Stethoscopes, Gages, Sphygs, etc.
Welch Allyn, Inc. San Diego Operation 7420 Carrol Road San Diego, CA 92121-2334, USA tel: 1- 800-854-2904 1- 619-621-6600 fax: 1- 619-621-6611 Contact: Billy Loza	United States	All Diatek Products including InstaTemp, SureTemp, Kreativ dental and all Schiller products.
Welch Allyn, Canada Ltd. 160 Matheson Blvd. E., Unit #2 Mississauga, Ontario Canada L4Z 1V4 tel: 1-800-561-8797 1-905-890-0004 fax: 1-905-890-0008 e-mail: Burfieldk@mail.welchallyn.com Contacts: Jatinder Panchhi / Ken Burfield	Canada	Most Medical Products including: Vital Signs Monitor & ABPM Diatek products, Schiller Atlas monitor Pneumocheck MicroTymp 1, AudioScope Some exceptions: Micro Tymp 2 FX100 VS-100 / 200 & old Video Imaging products
MD International 11300 N.W. 41st Street Miami, FL 33178 USA tel: 1-305-669-9003 fax: 1-305-669-1971 Contact: Jorge Takenaga	Latin America Caribbean *(Regional level service provider)*	Traditional Medical Products, MicroTymp 1, AudioScopes Vital Signs Monitor, Atlas, ABPM, Sphygs, LCI 100/200 & VDX-300 Diatek Products Surgical Imaging light sources Some GSI products

Europe		
Welch Allyn, GmbH PSC Zollerstrasse 2-4 72417 Jungingen, Germany tel: (011) 49-7477-927186 fax: (011) 49-7477-927193 Contacts: Marion Walther / Volker Scherle	Europe Middle East Eastern Block (up to Moscow) Africa	Most Medical Products including: Vital Signs Monitor, ABPM Diatek products, Schiller S&K Products Surgical Imaging light sources Atlas monitor, MicroTymps, SureSight Kreativ and Reveal Dental Some exceptions: FX-100 VS-100 / 200 & old Video Surgical Imaging cameras
Welch Allyn France 814 rue Charles de Gaulle 77100 Mareuil les Meaux France Phone: (011) 01.60.09.33.66 Fax: (011) 33 1 60 09 67 97 e-mail: technic.aide@wanadoo.fr Contact: Clara Silvestre	France	Most Medical Products including: Traditional Instruments VSM, ABPM, Tycos products Diatek Products
Welch Allyn, Ltd. - UK Cublington Road Aston Abbotts, Buckinghamshire England HP22 4ND tel: (011) 44-01296-689905 fax: (011) 44-01296-682104 mob: (011) 44-0467-301814 e-mail: Popej@mail.welchallyn.com Contact: Jonathan Pope	England	Most Medical Products including: VSM, Tycos Schiller (Welch Allyn brand units only) Diatek Products S&K Products Surgical light sources Atlas monitor Limited services for: MicroTymps GSI Products ABPM Camera Systems

Asia Pacific		
Welch Allyn, Ltd. - Australia Metro Centre Unit 5 38 South Street Rydalmere NSW 2116, Australia Postal address: PO Box 132 Rydalmere NSW 1701, Australia tel: (011) 612 9638-3000 fax: (011) 612 9638-3500 e-mail: Turnerg@mail.welchallyn.com Contact: Geoffrey Turner	Australia New Zealand South Pacific Islands	Most Medical Products including: Vital Sign Monitor & ABPM, Schiller Diatek products GSI products PneumoCheck MicroTymp 1 and 2, SureSight Surgical Imaging light sources Atlas monitor Some exceptions: FX100 VS-100 / 200 & old Video Surgical Imaging cameras

Welch Allyn, Ltd. - Singapore 300 Beach Road, #25-08 The Concourse Singapore 199555, Singapore tel: (011) 65-291-0882 fax: (011) 65-291-5780 e-mail: Sinwa@cyberway.com.sg Contact: Rayner Lee	S. Asia W. Asia Japan	Primarily a support center for distributors and bio-meds, with limited repair services which include: Traditional Medical Products Vital Signs Monitor & ABPM LCI200 & VDX-300 Atlas monitor Some exceptions: FX100 VS-100 / 200 & old Video Surgical Imaging cameras MicroTymp, AudioScope 3 PneumoCheck, Schiller products
Welch Allyn China Office 708, Central Plaza Number 227, Huang Pi Bei Road Huang Pi District Shanghai, China tel: (011) 86-21-63279631 fax: (011) 86-21-63279632 e-mail: ymyan@public1.sta.net.cn Contact: Edmund Yan Yiming	China	Most medical products sold in China, including Traditional Instruments Vital Signs Monitor, ABPM, Atlas Diatek products Technical support for VideoPath gastroscopes and colonoscopes Some exceptions: MicroTymp, AudioScope, Schiller products